Encroachments on their range reduced the quantity of wild plant foods and game, and as agriculture alone had never been adequate to maintain the population, their circumstances were regarded as cirtical both by Havasupai and white men who agreed that the group was verging on extinction (Whiting, n. d., 21). Population has remained stable, however, with exception of relatively minor fluctuations. Curtailment of wild food supplies somewhat increased importance of domestic crops, but tribal subsistence remained at a minimum level. Diet of the children was supplemented by a school lunch program initiated with establishment of a day school. The tribe, as a group and on a family basis, has received some government assistance in periods of crisis.

About 1940 the Havasupai tribe received a grant of $10,000 under the Indian Rehabilitation program. This sum was invested in the Havasupai Development Enterprise, a tribal cooperative program designed to aid in development of tribal resources, consisting of farm lands and a scenic area. Havasupai need for a grocery store and a source of monetary income to individual families were factors determining program organization. Accordingly, the enterprise was divided into three activities, a tourist enterprise, a tribal grocery store, and a farming enterprise (development of farm lands and methods, and tribal purchase of a tractor to be rented by individuals). Subsidiary to these three activities, a packing enterprise facilitates their operation and also provides some income for reservation families (O. G. Barnard, 1951, and V. C. Collins, 1958, personal interviews).

Kelly (1953, 56) placed the median annual income for all families (meaning those residing primarily in Supai) as under $300. According to Kelly, of a total of 34 families, 19 received total support from welfare and one received partial support in the fiscal year of 1952. The 20 families receiving aid would include households with dependent, orphaned or illegitimate children and aged or infirm persons. Financial assistance is given under the categories of Aid to Dependent Children, Aid to the Blind, Old Age Assistance, Social Security, and General Assistance, the latter fund designated for disabled persons who do not qualify in other categories. Such families almost invariably do some gardening and may, in addition, receive aid from relatives outside their camp group in the form of labor or gifts of garden produce or other commodities. Kelly found 14 families self supporting, three from reservation resources, and 11 from outside wage work. It is significant that not one family was self supporting from farming alone.

Families economically sustained from reservation resources no doubt were among those of the following Havasupai employed by the government or tribe; agency packer, mail carrier, postmaster, school laborer, school cook, and tribal business manager. O. G. Barnard, formerly a resident agent, quoted the following monthly salaries for some of these positions in 1951: Havasupai Development Enterprise manager (at that time including the jobs of tourist manager, storekeeper, and supervisor of farm machinery), $65; postmaster, $70; mail carrier, $300; government packer, average of

464 $50 to $70 for most of the year; school laborer, $35 to $50, and school house-
657 keeper and cook, $320.
465

In 1958 the salaried positions open to Havasupai living on the reservation included postmaster, tribal tourist manager, policeman, and mail carrier. Salaries for three of the jobs ranged from $60 to $150 per month. The mail carrier was on an annual salary of $4100. Of 30 families, 24 received welfare assistance, the income from this source totaling about $2,500 per month. Victor Collins, the resident agent, estimated that 15 men packing for the store and the tourist enterprise averaged approximately $750 each annually. He placed the garden crop value at about $300 per family. Perhaps an index to the cash income for the tribe may be found in the amount spent for groceries at the tribal grocery store. It was reported that an average $2,000 grocery order is stocked at approximately six week intervals.

For some years prior to 1951, the Indian Service annually paid an estimated average of $800 to $1,000 for repair of ditches damaged by flood in Supai. Kelly (1953, 53) reports the Office of Indian Affairs budget for 1953 to have been $2,545 for irrigation operation in Supai, which sum, of course, covered costs in addition to wages.

About 20 Havasupai families each own a few head of cattle which bring
231 a small and sporadic cash income and furnish some meat for family consump-
511 tion. The number of horses owned by the Havasupai is pertinent to their
434 cattle ownership problems. For many years, available range was overstocked with horses which the owners could not be induced to sell. After much urging, the Havasupai sold three carloads of horses in 1947, and in subsequent years their herd was further reduced to a level more consistent with their needs and with their expressed desire to increase cattle herds. However, the presence of wild horses which depiete available range continues to pose a problem.

Some minor sources of income include sale to tourists of baskets
434 woven by a few of the Havasupai women, sale of a few tanned buckskins by
511 men to members of other tribes, and winning of rodeo prizes by younger men who enter competitions in neighboring communities. Havasupai men, being excellent horsemen, are in demand by neighboring ranchers. Perhaps more
[464] than a dozen young men work periodically as ranch hands and regularly participate in autumn roundups of cattle owned by the Walapai tribe and by white ranchers.

464 Havasupai who leave the canyon to find employment outside may be-
166 come permanent residents of neighboring communities, but their ties with
[574] relatives living in the canyon and their sense of identification with the tribe remain strong. Visits to Supai are made with some frequency, and such
[425] individuals do not voluntarily relinquish claim to lands in the canyon. If their fields are used by others, as they usually are, ownership will pass in

time (perhaps without recognition of the transfer by the former owner), to canyon residents by right of need and usage (Spier 1928, 231, Service 1947, 364). 464 166 [425]

Individuals who find permanent or temporary employment outside Supai may contribute to the support of close relatives remaining in the canyon, although usually such assistance is in the form of small gifts, or perhaps loans. Havasupai families remaining away from Supai for long periods tend to move from town to town. While this is doubtless traceable in some degree to local employment markets, many of these families seem periodically drawn to communities where other Havasupai are living, especially to Grand Canyon Village. [431]

About a mile from Grand Canyon Village, a number of Havasupai families occupy a small group of frame cabins provided for them. Other Havasupai families live in Grand Canyon proper. Until recently a few families lived at Rowe Well and Hopi Tower, each only a few miles distant, and the mail carrier's family was at Pasture Wash, about 30 mi. to the southwest, near Topocoba Hilltop. Families located in and near Grand Canyon Village constitute the largest concentration of Havasupai population off the reservation. Havasupai families there in no sense make up an independent community, being instead wholly dependent upon the community of Grand Canyon for employment and for all public services. A nucleus of eight Grand Canyon Havasupai families may be considered permanent residents, some of them having lived there continuously for 10 or 15 years. These residents are, for the most part, families in which an adult male has held the same job for a number of years. Attached to these family groups are several single or widowed men who also are permanently employed at Grand Canyon. 361 162 166 161 166

Temporary Grand Canyon residents include: (1) families who normally reside either on the reservation or in neighboring towns, but who move to Grand Canyon now and then for periods ranging from a few months to several years; (2) relatives who come to visit singly or in family groups for days, weeks, or longer, and some who may come to spend the winter months; and (3) a summer influx of individuals of both sexes, usually unmarried young adults, needed for temporary employment during the heaviest tourist season. Many persons in this third category belong to family groups in Supai, their earnings thus being significant to economy on the reservation. Temporary employment may be found by most of this group in cabin or hotel maid service, kitchen work, laundry, or garbage disposal, while miscellaneous employment as stablehands, truck drivers, mechanics, housemaids for resident families, etc., may be available. [464]

Havasupai who are permanently employed at Grand Canyon or elsewhere contribute less to reservation income than do individuals temporarily employed and belonging to households in Supai. Permanent employees of course, contribute indirectly by relieving competition for canyon resources 434

462 for someone who needs help. The heavier work is done by men while women
[342] generally do the thatching. However, with house design and materials chang-
[476] ing, housebuilding is now a masculine task.

Barter was popular among both sexes, both within and outside the tribe,
462 each individual trading the fruits of his own labors. Women usually traded
439 baskets while men traded tanned or raw hides. Both might trade dried and seed corn, pinyon nuts, mescal, and other wild plant foods. Men sometimes traded buckskin clothing, powdered ocher, or tools of their own workmanship. Havasupai trading parties consisted of family units or all male groups; women of course did not go off alone to trade. The Havasupai also obtained articles from one neighboring tribe to be used as trade items with another neighbor. Spier (1928, 344) reports that "An active trade was conducted with the Navaho and Hopi to the east and with the Walapai and Mohave to the west. In fact, we may properly speak of a northern Arizona trade route from the Hopi to Mohave, independent of more southerly tribes and cut off from these to the north by the Grand Canyon." Buckskin was the Havasupai article most in demand among other tribes.

Recent Employment

461 Service ascribes a postulated increase in male prominence and a cor-
177 responding decrease in importance of woman's economic role, in part, to
562 a change from male hunting and female gathering to a subsistence based mainly upon male agricultural activities, and, further, to "white influence" which, he writes, "is undoubtedly effective in promoting male predominance" (1947, 381).

This hypothesis appears subject to modification today. Spier (personal communication, 1957) supports the following conclusions:

First, a survey of women employed permanently or seasonally either on or off the reservation reveals that several maintain themselves, while many others contribute to the support of their parents, husbands, or children. Women remain active in gardening activities as they have always been, but some of the heavier work is reduced for both sexes by use of the tribally owned tractor operated on individual plots by an individual appointed by the tribal council.

Secondly, it is difficult to imagine that the white cultural group, which socially, politically, and economically accords women almost unprecedented status, rights, and privileges, can be responsible for promoting predominance of the Havasupai male or for minimizing the economic importance which the woman had under aboriginal conditions.

562 Women have not been idle at any stage of economic adaptation which
464 the tribe has undergone beginning with depletion by the whites of natural
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resources formerly available to them. When wild foods became scarce, women began to weave baskets for sale to tourists at Grand Canyon. Tourist demand for basketry exceeded that of neighboring tribes with whom the Havasupai had traded. In recent years, basket weaving has decreased in popularity among women, because it is tedious work and compensation is inadequate for time and effort expended. 464 177 562

A younger generation of women has discovered a source of income, larger and more easily acquired than that from basket weaving, in employment at Grand Canyon and elsewhere. Nearly all young girls now spend some time prior to marriage working at Grand Canyon or elsewhere. Usually, they do maid service or kitchen work for the tourist establishment or housework for resident white families in the Grand Canyon community.

On the reservation, a young woman is postmistress, and the Indian Service, until the day school was discontinued in 1955, employed a woman as school housekeeper-cook, rotating this job among applicants from year to year to distribute the income among families. A number of other women are permanently employed off the reservation.

In the younger generation, one girl who graduated from high school in 1951 applied for admission to nursing school but was refused because of her health. Subsequently, she worked a year in a Phoenix hospital, was a housemaid in Los Angeles, was a matron at Sherman Institute in Riverside, California, and presently is employed in an Oakland hospital as a nurse's aid. She is an exception rather than the rule, showing more initiative than most other girls or boys of the same age. Significantly, her mother is perhaps the best educated, most progressive, and most ambitious woman of her own generation, a woman unafraid to instigate action in matters that concern the tribe and courageous in speaking her opinions in public meetings of the tribal council.

A majority of both boys and girls in recent years have failed to complete high school and many have left school at the eighth or ninth grade level or earlier, thus limiting themselves in the kind of employment they can obtain and restricting themselves to the lower income brackets in comparison with better educated or job-trained white youths of comparable age. On the whole, Havasupai girls tend to remain in school longer than do the boys. [972]

Ownership and Inheritance of Property

In aboriginal times, Havasupai women had clear right of ownership to personal items such as clothing and tools used for basket weaving or other work, articles of their own manufacture such as baskets, and money or other goods acquired in selling or trading items belonging to them. In addition, feminine property included baskets, pottery, and other articles used 422 562

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sils, and blankets is owned individually. Each one can dispose of his 422
possessions independently.

The Havasupai is an excellent horseman and packer. He usually 492
has quite a number of horses and does considerable packing on the trail with them. Traveling up and down the steep winding trail to the top of the canyon is very strenous work for the horses and the Indian must have a sufficient number of them so as to rest each horse for a few days after one of the trips.

When first visited by the white man these people dug holes with 241
stone hoes, planted their seeds, but did little cultivating. Only a small [215]
acreage was planted, this being irrigated from small ditches running from dams of rock, logs, and willows piled in the river. Methods of farming are still simple. The ground is first plowed and then cultivation is done with a hoe; some rotation of crops is practiced from year to year. Irrigation ditches now serve over a hundred acres of land.

The Havasupai are among the most conscientious farmers in the [240]
Southwest. Their interest centers so firmly in their fields that when remunerative employment is to be had at Grand Canyon the men will leave the work with semi-monthly pay to plant and tend their crops. Planting begins in the middle of April, but previously the fields are cleared of weeds and brush, plowed with a one horse walking plow, and irrigated two or three days before planting.

The tools used are a planting stick about an inch wide and a foot 241
and a half long with one end cut wedge-shaped, and a modern hoe with 412
a blade at an angle to the handle. Formerly a wooden spade-shaped [237]
hoe with an extra long handle was used; also, the shoulder blade of a horse was held in the hands and used to scrape the sand out of irrigating ditches and for scraping out weeds.

Planting is an occupation that most of the family takes part in; 241
even the small children help dig holes. The corn is not planted deep, about three and one-half inches is the usual depth. The lines for the rows of hills are generally drawn with the foot. Kneeling, the first hole is dug with the planting stick; the soil is loosened, and eight or ten seeds dropped in. However, before putting the kernels in the first hole the planter says a prayer. Filling the hole, he takes two or three short steps forward, kneels, digs a second hole, and plants. This he continues until the field is planted.

The planting is not all done at one time but extends over a period of two months. Beans are planted on the same day as corn and placed half way between the corn hills. Both crops ripen about the same time.

When the young corn shoots are about two inches above the ground, they are given a second watering. When the tassels appear, about two and a half months after planting, the corn receives a third and last watering. The fields are weeded at regular intervals and traps are placed for rodents which would otherwise destroy a portion of the crops.

The Havasupai plant a small variety of corn, with ears about six [237]
inches long, known as Mohave corn, which will yield ears in about two months. Other varieties ripen at intervals from mid-August until the last of September. When the ears are ripe, they are gathered in burden baskets. The gatherer breaks off the ears and throws them in the basket on his back while he walks along. The corn is dried on the 251
roofs or on brush heaps. It may be placed in the storage chambers either in the form of husked ears or shelled and piled in a corner. Seed corn is always husked and heaped in a separate pile in a corner. Watermelon, pumpkin, sunflower, and squash seeds are dried, put in cloth sacks and stored in the storage chambers. Beans and corn ripen at the same time and those beans not eaten green are dried and stored in stone chambers for winter use.

The Havasupai have innumerable ways of preparing corn. Only 252

6: Schwartz A-5 (1953) 1956
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the last item to change. The English language has not even yet been completely adopted; Havasupai is still spoken in the homes, at play, and at work. The present teacher (1954) has complained that, for this reason, the children forget most of their English vocabulary during the summer. English will be more widely used, however, with the increasing influence of schooling, the Saturday night cowboy movies, and the radios and phonographs.

A Havasupai village established by the Park Service near the Grand Canyon National Park settlement on the plateau now forms one of the main centers of Havasupai life and acculturation. The inhabitants work either for the Park Service or for some other white firm concerned directly or indirectly with the Grand Canyon tourist business. The cash income derived from this work and from the Havasupai's own tourist trade in the canyon has radically changed their food patterns. Now they are able to, and do, buy food in the tribal store, which stocks the standard commodities. It is doubtful that canned soup or Hershey bars played a very important role in the diet of the pre-reservation Havasupai.

While the crop assemblage has remained approximately the same as that of the previous period, the farming methods have changed considerably. For example, a tractor is now used in the canyon to plow the fields. It was packed down the narrow trails piece by piece, as was the electric power plant which supplies current to the school and other government buildings.

The big flood of 1910, which washed out most of the farms and homes of the canyon, brought from the government relief in the form of small wooden frame houses. Indirectly, this caused the extinction of the talus top granary. After the flood the old brush dwellings were rebuilt and the new frame houses were used for storage, since they were supposedly too cold in the winter and too hot in the summer for living purposes. A few individuals, however, have adopted the plan of the frame house and have built stone houses, using modern techniques. This form may become the common dwelling of the future.

The suspension of crematory activities also began soon after the government invaded the canyon. The old pattern was gradually replaced by the extended burial, which is universally practiced today.

The acculturation of the Havasupai, which is by no means complete, took place first by the diffusion of traits into the canyon through the Hopi and Walapai, then by the selected introduction of white culture through the government workers, and finally by individual contact with whites at the Grand Canyon National Park village and elsewhere. These processes have increasingly accelerated the change of an aboriginal people to potentially full-time participants in Anglo culture and society.

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